

## Nasdaq: What Goes Up...

By Burton G. Malkiel

At least temporarily, the ghost of Isaac Newton has revisited the Nasdaq Stock Market.

The index stands more than 25% below its recent highs. And those highs were truly extraordinary. From October 1998 to March of this year, the performance of the Nasdaq was nothing short of spectacular. From a low of just over 1500, the index soared to above 5000. Valuations of the technology and growth stocks that dominate the Nasdaq reached unprecedented premiums. Internet stocks doubled and then doubled again. Companies manufacturing the infrastructure of the Net, such as Cisco Systems and Sun Microsystems, sold at well over 100 times earnings.

To understand this month's sharp sell-off, we need first to consider this sharp rise in prices. What could explain such a meteoric rise in the share prices of new-economy stocks?

The rise can be linked to three important factors: the information revolution transforming our economy; the kind of psychological contagion described in Robert Shiller's recent book, "Irrational Exuberance" and the increased practice of momentum investing and the self-fulfilling effect that such practices can engender.

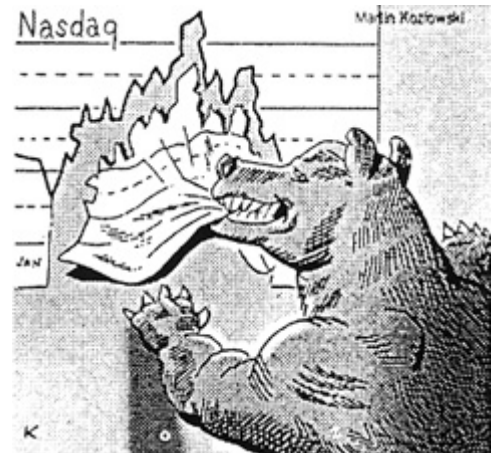
First, there is no question that we are living through a period of technological change that is at least as important as the industrial revolution at the end of the 19th century. The information revolution is transforming the way we communicate, the way consumers and businesses make purchases and the way we learn. Use of the Internet doubles every several months and the process is probably in its infancy. There is no doubt that the success of the tech-heavy Nasdaq in part reflects the real transformation of our global economy.

Second, the initial rise in the value of Nasdaq stocks undoubtedly generated what Mr. Shiller calls a "positive-feedback loop" that pulled larger and larger groups of investors into the stock market. The prices of tech stocks are now discussed with as much fervor as sports scores. Ordinary individuals rushed to buy these stocks simply because they were going up and because friends and neighbors talked of having "made a killing" in tech stocks.

The third point has to do with the rise in momentum investing and the self-fulfilling effect of huge mutual-fund flows into high-tech funds. For years, financial economists have isolated various regularities -- or predictabilities -- in the stock market. Returns, for example, have been claimed to be predictable on the basis of certain valuation metrics such as price/earnings multiples and price/book value ratios, or other characteristics such as size. But the only predictable pattern that has worked dependably over the past few years has been momentum investing -- the practice of buying stocks or market indices on the basis of their recent performance.

The market is not a perfect random walk, and there is some tendency for short-term positive returns to persist. In the late 1990s, this tendency toward short-run momentum was far more pronounced than at any previous period of the century.

Enormous press coverage is given to mutual funds that outperform during a quarter or year, and successful



mutual-fund managers are revered like rock stars. The public joins the party and flows of funds into equity mutual funds become overwhelmingly influenced by recent performance. But as hot-performing funds and fund complexes, such as the Janus Group, receive the lion's share of mutual-fund investors' dollars, they then buy the very tech stocks that have been responsible for their excellent performance, thus creating a self-fulfilling prophecy.

For a while the Nasdaq party went on with unrestrained exuberance, but history tells us that eventually all excessively exuberant markets succumb to the laws of gravity. The 'tronics' boom of the 1960s, the "Nifty Fifty" boom of the 1970s and the biotech speculation of the 1980s all ended badly for investors. Investments in transforming technologies have often proved unrewarding for investors. We have seen electric power, railroads, airlines, automobiles and television and radio manufacturers transform our country, but most of the early investors lost their shirts. As Warren Buffett recently put it, "The key to investing is not how much an industry will affect society or grow, but rather its competitive advantage and the durability of that advantage."

Moreover, there is one ineluctable truth about momentum investing -- it always misses the turning points. And just as a self-fulfilling prophecy can support the prices of tech stocks when funds are flowing into popular mutual funds. so it can work in reverse when hot money seek other outlets.

What I think has happened to new-economy stocks in general -- and to Nasdaq favorites in particular -- is that investors eventually recognized the high valuations could not be supported. As Jeremy Siegel argued on this page last month, history has shown that whenever companies, no matter how great, get priced at exorbitant earnings multiples, buyers should beware. Mr. Siegel shows that for many of the Internet favorites, even if the fantastic long-term growth rates projected by analysts are achieved over the next decade, their P/E multiples would still remain in triple digits. But there is simply no way a very large-cap stock is likely to support P/E multiples in the triple digits.

Consider, also, the following experiment. Suppose, from its high price earlier this month, Cisco Systems produces a "modest" 15% rate of return for investors over the next 20 years. This would suggest the improbable implication that the market capitalization of Cisco would become larger than the current gross domestic product. What I think has happened to the Nasdaq is not any particular piece of bad news (such as Microsoft's failure to settle with the government), but rather the realization that valuations had simply become excessive.

So what happens next? Is this the end of the Nasdaq's big rise for the foreseeable future? No one knows. I have followed markets for a lifetime and know enough to understand that while valuations of Nasdaq stocks are still far from cheap, stock prices are essentially unpredictable.

But I am also persuaded by the wisdom of Benjamin Graham, author of "Security Analysis," who wrote that in the final analysis the stock market is not a voting mechanism, but a weighing mechanism. Valuation metrics have not changed. Eventually, every stock can only be worth the value of the cash flow it is able to earn for the benefit of investors. In the final analysis, true value will win out.

Mr. Malkiel is the author of "A Random Walk Down Wall Street," the seventh edition of which was published last year.